

AMENDMENTS TO THE CLAIMS

Claims 1 - 13 (previously canceled).

Claim 14 (currently amended). A packaging system for transport or storage of a temperature sensitive substance, the system comprising:

a thermally insulated container suitable for containing the substance and ambient air;
a temperature control system for heating or refrigerating air within the container;
an internal device with a thermometer measuring the temperature of the substance;
and
an external device in communication with the internal device wherein:
the external device includes the temperature control system and the temperature control system is activated as needed to maintain the temperature of the substance within a predetermined upper and lower range of temperatures to optimize the use of energy as the package system is transported through a variety of ambient temperatures.

Claim 15 (currently amended). A method for storing or transmitting a temperature sensitive substance, the method comprising the steps of:

placing the substance within a thermally insulated container with ambient air;
measuring the temperature of the substance;
recording the measured temperature of the substance in relation to time; ~~and~~
retrieving the measured temperature of the substance to verify substance temperature over duration of time; and
activating a temperature control system when the measured temperature of the substance approaches a predetermined upper or lower temperature such that the measured temperature of the substance is kept between the

predetermined upper and lower temperatures while also being allowed to fluctuate between the predetermined upper and lower temperatures.

Claim 16 (new). The system of claim 14 wherein the external device is in wireless communication with the internal device.

Claim 17 (new). The system of claim 14 further comprising a rechargeable power system for powering the temperature control system.

Claim 18 (new). The method of claim 15 further comprising:
monitoring the temperature of ambient air within the thermally insulated container; and
predicting the rate of temperature change of the substance in correlation with the temperature change of the ambient air within the thermally insulated container.

Claim 19 (new). The method of claim 15 further comprising:
monitoring the temperature outside the thermally insulated container; and
predicting the rate of temperature change of the substance in correlation with the temperature change of the ambient air outside the thermally insulated container.

Claim 20 (new). A method for optimizing the energy consumption in a temperature controlled transport device comprising:
monitoring a temperature of a substance being transported or stored within the temperature controlled transport device over time;
communicating the temperature and of the substance over time to a control panel;
calculating whether the temperature of the substance is approaching a predetermined upper or lower limit; and

if the temperature of the substance is approaching a predetermined upper or lower limit activating a rechargeable power system to power an environmental control unit that heats or cools ambient air within the temperature controlled transport device and thereby prevent the temperature of the substance from deviating beyond the predetermined upper or lower limit.